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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,794	04/16/2004	John K. Overby	84,720	1326
38092 7590 12/28/2006 OFFICE OF COUNSEL, CODE 004 NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION 9500 MACARTHUR BLVD. WEST BETHESDA, MD 20817			EXAMINER VALENTIN, JUAN D	
			ART UNIT	PAPER NUMBER
			2877	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/826,794

Applicant(s)

OVERBY ET AL.

Examiner

Juan D. Valentin II

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings submitted are not formal drawings. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-5 rejected under 35 U.S.C. 103(a) as being unpatentable over Muggli et al. (USPN '675, hereinafter Muggli).

Claims 1 & 4

Muggli discloses a smoke detector system comprising a passive sensor S_M (Fig. 1) and a fiber cable (F, F_1 , F_2) connecting the sensor to the opto- electronics unit (Figs. 2 & 5) which comprises a housing (col. 12, lines 46-49) enclosing an air gap M (Figs. 1-7) exposed through openings at said test location to smoke, collimating lens K (Figs. 1-7) means mounted within the

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housing at one axial end thereof and connected to the fiber cable for transmission of said generated optical signals into the housing confined to the air gap M, and focusing mirror R (Fig. 1) means mounted within the housing at an opposite axial end of the housing for reflection of the optical signals through the air gap M and the lens means into the fiber cable (F, F₁, F₂) to be returned to the opto-electronics unit (col. 2, line 38-col. 3, line 6, col. 3, lines 39-42, col. 3, line 67-col. 4, line 4).

As shown above, Muggli discloses the use of optical fibers to transmit light to the reflecting surface R (Fig. 5). It is the position of the Office that even though the reference of Muggli does not specifically disclose using fibers to guide light reflected from reflecting surface R, it does outline the importance of using fibers to guide light to and from light sources and light detectors as shown above. It would have been obvious to someone of ordinary skill in the art at the time of the claimed invention to use optical fibers in a variety of different ways in order to guide light to and from the light sources and detectors as shown by Muggli. In light of the applicants disclosure, there is no critically distinguishing optical fiber feature in the applicants disclosure that exemplifies novelty over prior art disclosure. Therefore producing the same results as the applicants limitation, therefore the reference of Muggli reads on applicants claimed limitation.

Claim 2

Muggli as applied above further discloses a light emitting diode means for generation of the optical signals within a predetermined optical spectrum, receiver means for detecting varying effects of the smoke on the optical signals returned through the fiber cable, and optical coupler

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means connected to the receiver means, the fiber cable and the light emitting diode means for transmission of the optical signals there between (see above and col. 3, lines 33-49).

Claims 3 & 5

Muggli as applied above further discloses signal divider means connected to optical coupler means for splitting transmission of the light signals received therefrom along two signal paths; filter means within one of said signal paths for passage of only the optical signals with an upper half of the optical spectrum; detector means for respectively detecting the optical signals transmitted from the filter means and along the other of said signal paths, and signal processing means connected to said detector means for converting the optical signals received therefrom into an output signal reflecting obscuration of the air gap by the smoke received therein (col. 3, lines 1-33, col. 3, line 67-col. 4, line 13, col. 5, line 23, -col. 7, line 43).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan D. Valentin II whose telephone number is (571) 272-2433. The examiner can normally be reached on Mon.-Fri..

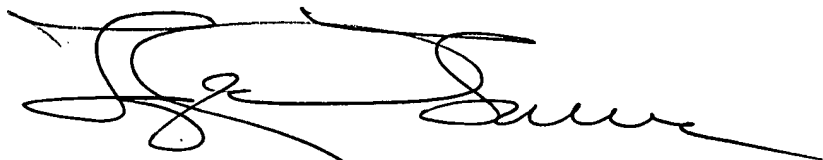
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Juan D Valentin II
Examiner 2877
JDV
December 21, 2006



LAYLA G. LAUCHMAN
PRIMARY EXAMINER